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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/766,758

01/27/2004

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021751-000710US

2259

68218 7590 10/01/2008

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EXAMINER

PHAM, MICHAEL

ART UNIT

PAPER NUMBER

2167

MAIL DATE

DELIVERY MODE

10/01/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/766,758	Applicant(s) JENSEN ET AL.	
	Examiner MICHAEL PHAM	Art Unit 2167	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 July 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>7/17/08</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/17/08 has been entered.

Claim Status

2. Claims 21-44 are pending.
3. Claims 21-44 have been examined.

Specification

4. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: machine-readable medium is not in the specifications.

Claim Rejections - 35 USC § 101

5. Regarding claim 29, this claim recites a “processing component” and “storage device”. In the absence of any modifying disclosure of this limitation in the specification, the examiner interprets the term ‘processing component’ as limited to hardware embodiments; and the term ‘storage device’ as excluding printed paper, transmission media, signals, or any form of energy,

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such that the claim clearly falls within a statutory class of invention as required under the terms of 35 U.S.C. 101.

6. Claims 37-44 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Interim Guidelines for examination of Patent Applications for Patent subject matter eligibility states, page 51:

When nonfunctional descriptive material is recorded on some computer-readable medium, in a computer or an electromagnetic carrier signal, it is not statutory since no requisite functionality is present to satisfy the practical application requirement. Merely claiming nonfunctional descriptive language material, i.e. abstract ideas, stored in a computer-readable medium, in a computer, or on an electromagnetic carrier signal does not make it statutory. See *Diehr*, 450 U.S. at 185-86, 209 USPq at 8 (noting that the claims for an algorithm in *Benson* were unpatentable as abstract ideas because "[t]he sole practical application of the algorithm was in connection with the programming of a general purpose computer."). Such a result would exalt form over substance. In *re Sarkar*, 588 F.2d 1330, 200 USPQ 132, 137 (CCPA 1978) ("[E]ach invention must be evaluated as claimed; yet semantogenic considerations preclude a determination based solely on words appearing in the claims. In the final analysis under 101, the claimed invention as a whole must be evaluated for what it is") (quoted with approval in *Abele*, 684 F.2d at 907, 214 USPQ at 687). See also in *re Johnson*, 589 F.2d 1070, 1077, 200 USPQ 199, 206 (CCPA 1978) ("form of the claim is often an exercise in drafting"). Thus, nonstatutory music is not a computer component and it does not become statutory by merely recording it on a compact disk. Protection for this type of work is provided under the copyright law.

Claim 37 recites "A machine-readable medium". The context the medium was used in the claim would fairly suggest to one of ordinary skill signals or other forms of propagation and transmission media, type written, or handwritten text on paper, or other items failing to be an appropriate manufacture under 35 USC 101 in the context of computer-related inventions. As such, the claim is drawn to a form of energy. Energy is not one of the four categories of invention and therefore this claim(s) is/are not statutory. Energy is not a series of steps or acts

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and thus is not a process. Energy is not a physical article or object and as such is not a machine or manufacture. Energy is not a combination of substances and is therefor not a composition of matter. Claims 38-44 fail to resolve the deficiencies of claim 37 and are therefore rejected.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. **Claims 21, 23, 25-26, 28, 29, 31, 33-34, 36, 37, 39, 41, 42, and 44 rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 6184901 by Silva et. al. (hereafter Silva).**

Claim 21 :

Silva discloses the following claimed limitations:

“receiving, from a first user in a plurality of users, one or more commands for creating a first computer graphics model in a model creation environment, the first computer graphics model including a first plurality of objects;”[col. 1 lines 35-36, three dimensional modeling systems allow users to generate models of three dimensional objects using computers. col. 12 line 32, each time a new object is instantiated by a user, a derived object is created. Col. 12 lines 35-36, the parameters defining the tube are shown in the tube definition 310. At this point the

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modifier stack only includes the reference to the tube master object and the transform for the tube. Accordingly, receiving, from a first user in a plurality of users (user), one or more commands for creating a first computer graphics model in a model creation environment (new object instantiated), the first computer graphics model (figure 3 element 300 tube) including a first plurality of objects (modifiers and parameters)]

“receiving, from the first user, a request to include an instance of a second computer graphics model in the first computer graphics model, the second computer graphics model including a second plurality of objects;” [col. 1 lines 35-36, three dimensional modeling systems allow users to generate models of three dimensional objects using computers. col. 12 line 32, each time a new object is instantiated by a user, a derived object is created. col. 12 lines 57-60, the modifier stack allows a user to easily add modifiers to an object and view not only the results of the new modifiers but also view a list of all the modifiers that apply to an object. Col. 13 lines 3-4, the user can disable a particular modifier, but keep the modifier in the modifier stack. Accordingly, receiving, from the first user (user), a request (new object instantiated) to include an instance of a second computer graphics model in the first computer graphics model (figure 6), the second computer graphics model (figure 6 element 610) including a second plurality of objects (modifier stack 280)]

“in response to the request, retrieving a specification of the second computer graphics model, the specification of the second computer graphics model including information identifying, for at least one object in the second plurality of objects, one or more attributes of said at least one object that are overridable;”[col. 4 lines 53-57, the bend modifier modifies the definition of the tube so that the tube will appear bent. The twist modifier modifies the definition

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of the bent tube so that the bent tube is also twisted. Col. 13 lines 3-12. Accordingly, in response to the request (modifier), retrieving a specification of the second computer graphics model (definition), the specification of the second computer graphics model including information identifying (indicator), for at least one object in the second plurality of objects (bend), one or more attributes of said at least one object (bend) that are overridable (need only select the bend disabled indicator);]

“creating the instance of the second computer graphics model and including said instance in the first computer graphics model; and”[See figure 6. Accordingly, creating the instance of the second computer graphics model (figure 6 element 610)and including said instance in the first computer graphics model (figure 6 element 600)]

“for each object in the instance of the second computer graphics model:

determining, based on the specification of the second computer graphics model, attributes of said each object that are overridable; and”[See Col. 13 lines 3-12.

Accordingly, for each object in the instance of the second computer graphics model:

determining, based on the specification of the second computer graphics model, attributes of said each object that are overridable (need only select the bend disabled indicator)]

“enabling the first user to override values for the attributes of said each object that are determined to be overridable.”[col. 1 lines 65-67, each modifier modifies some portion of the definition of an object that may result in a change in appearance of the object when rendered. See Col. 13 lines 3-12. Accordingly, enabling the first user (user) to override values for the attributes of said each object that are determined to be

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overridable (need only select the bend disabled indicator)]

Claim 23 :

Silva discloses the following claimed limitations:

5“receiving, from the first user, a new value for an overridable attribute of an object in the instance of the second computer graphics model;”[figure 6]

“applying the new value as a current value for the overridable attribute in the context of the first computer graphics model; and”[figure 6]

“storing a specification of the first computer graphics model, wherein the specification includes a reference to the specification of the second computer graphics model and the new value.”[figure 6 and col. 11 lines 58-60]

Claim 25 :

Silva discloses the following claimed limitations:

“receiving, from a second user in the plurality of users, one or more commands for creating a third computer graphics model in the model creation environment, the third computer graphics model including a third plurality of objects;” [col. 1 lines 35-36, three dimensional modeling systems allow users to generate models of three dimensional objects using computers. col. 12 line 32, each time a new object is instantiated by a user, a derived object is created. Col. 12 lines 35-36, the parameters defining the tube are shown in the tube definition 310. At this point the modifier stack only includes the reference to the tube master object and the transform for the tube. Accordingly, receiving, from a third user in a plurality of users (user), one or more

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commands for creating a third computer graphics model in a model creation environment (new object instantiated), the third computer graphics model (figure 3 element 300 tube) including a third plurality of objects (modifiers and parameters)]

“receiving, from the second user, a request to include an instance of the first computer graphics model in the third computer graphics model;” [col. 1 lines 35-36, three dimensional modeling systems allow users to generate models of three dimensional objects using computers. col. 12 line 32, each time a new object is instantiated by a user, a derived object is created. col. 12 lines 57-60, the modifier stack allows a user to easily add modifiers to an object and view not only the results of the new modifiers but also view a list of all the modifiers that apply to an object. Col. 13 lines 3-4, the user can disable a particular modifier, but keep the modifier in the modifier stack. Accordingly, receiving, from the second user (user), a request (new object instantiated) to include an instance of the first computer graphics model in the third computer graphics model (figure 6).]

“in response to the request, retrieving the specification of the first computer graphics model, the specification of the first computer graphics model including information identifying, for at least one object in the first plurality of objects, one or more attributes of said at least one object that are overridable;” [col. 4 lines 53-57, the bend modifier modifies the definition of the tube so that the tube will appear bent. The twist modifier modifies the definition of the bent tube so that the bent tube is also twisted. Col. 13 lines 3-12. Accordingly, in response to the request (modifier), retrieving a specification of the first computer graphics model (definition), the specification of the first computer graphics model including information identifying (indicator),

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for at least one object in the first plurality of objects (bend), one or more attributes of said at least one object (bend) that are overridable (need only select the bend disabled indicator);]

“creating the instance of the first computer graphics model and including said instance in the third computer graphics model; and” [See figure 6. Accordingly, creating the instance of the first computer graphics model (figure 6 element 610) and including said instance in the third computer graphics model (figure 6 element 600)]

“for each object in the instance of the first computer graphics model:

determining, based on the specification of the first computer graphics model, attributes of said each object that are overridable; and” [See Col. 13 lines 3-12.

Accordingly, for each object in the instance of the first computer graphics model:

determining, based on the specification of the first computer graphics model, attributes of said each object that are overridable (need only select the bend disabled indicator)]

“enabling the second user to override values for the attributes of said each object that are determined to be overridable.”[col. 1 lines 65-67, each modifier modifies some portion of the definition of an object that may result in a change in appearance of the object when rendered. See Col. 13 lines 3-12. Accordingly, enabling the second user (user) to override values for the attributes of said each object that are determined to be overridable (need only select the bend disabled indicator)]

Claim 26 :

Silvia discloses: “the method of claim 21, wherein the second computer graphics model is created by a second user in the plurality of users distinct from the first user.”[col. 1 lines 35-36,

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three dimensional modeling systems allow users to generate models of three dimensional objects using computers.]

Claim 28 :

Silva discloses the following claimed limitations “wherein the specification of the second computer graphics model, further includes information identifying, for at least one object in the second plurality of objects, one or more attributes of said at least one object that are overridable;” [col. 4 lines 53-57, the bend modifier modifies the definition of the tube so that the tube will appear bent. The twist modifier modifies the definition of the bent tube so that the bent tube is also twisted. Col. 13 lines 3-12. Accordingly, wherein the specification of the second computer graphics model (definition), further includes information identifying (indicator), for at least one object in the second plurality of objects (bend), one or more attributes of said at least one object (bend) that are overridable (need only select the bend disabled indicator);]

“wherein the method further comprises: for each object in the instance of the second computer graphics model:

determining, based on the specification of the second computer graphics model, attributes of said each object that are not overridable; and” [See Col. 13 lines 3-12.

Accordingly, for each object in the instance of the third computer graphics model:

determining, based on the specification of the third computer graphics model, attributes of said each object that are overridable (need only select the bend disabled indicator)]

“enabling the first user to override values for the attributes of said each object that are determined to be not overridable.” [col. 1 lines 65-67, each modifier modifies some

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portion of the definition of an object that may result in a change in appearance of the object when rendered. See Col. 13 lines 3-12. Accordingly, enabling the first user (user) to override values for the attributes of said each object that are determined to be not overridable (need only select the bend disabled indicator)]

Claim 29 :

Silva discloses the following claimed limitations:

“a storage device configured to store specifications for a plurality of computer graphics models; and”[col. 3 line 64, the memory stores data and instructions.]

“a processing component in communication with the storage device,”[figure 1]

“the processing component being configured to:

receive, from a first user in a plurality of users, one or more commands for creating a first computer graphics model in a model creation environment, the first computer graphics model including a first plurality of objects;”[col. 1 lines 35-36, three dimensional modeling systems allow users to generate models of three dimensional objects using computers. col. 12 line 32, each time a new object is instantiated by a user, a derived object is created. Col. 12 lines 35-36, the parameters defining the tube are shown in the tube definition 310. At this point the modifier stack only includes the reference to the tube master object and the transform for the tube.

Accordingly, the processing component (figure 1) being configured to: receiving, from a first user in a plurality of users (user), one or more commands for creating a first computer graphics model in a model creation environment (new object instantiated), the first computer graphics

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model (figure 3 element 300 tube) including a first plurality of objects (modifiers and parameters)]

“receive, from the first user, a request to include an instance of a second computer graphics model in the first computer graphics model, the second computer graphics model including a second plurality of objects;” [col. 1 lines 35-36, three dimensional modeling systems allow users to generate models of three dimensional objects using computers. col. 12 line 32, each time a new object is instantiated by a user, a derived object is created. col. 12 lines 57-60, the modifier stack allows a user to easily add modifiers to an object and view not only the results of the new modifiers but also view a list of all the modifiers that apply to an object. Col. 13 lines 3-4, the user can disable a particular modifier, but keep the modifier in the modifier stack. Accordingly, receiving, from the first user (user), a request (new object instantiated) to include an instance of a second computer graphics model in the first computer graphics model (figure 6), the second computer graphics model (figure 6 element 610) including a second plurality of objects (modifier stack 280)]

“in response to the request, retrieve a specification of the second computer graphics model from the storage device, the specification of the second computer graphics model including information identifying, for at least one object in the second plurality of objects, one or more attributes of said at least one object that are overridable;” [col. 3 line 64, memory. col. 4 lines 53-57, the bend modifier modifies the definition of the tube so that the tube will appear bent. The twist modifier modifies the definition of the bent tube so that the bent tube is also twisted. Col. 13 lines 3-12. Accordingly, in response to the request (modifier), retrieving a specification of the second computer graphics model (definition) from the storage device

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(memory), the specification of the second computer graphics model including information identifying (indicator), for at least one object in the second plurality of objects (bend), one or more attributes of said at least one object (bend) that are overridable (need only select the bend disabled indicator);]

“create the instance of the second computer graphics model and include said instance in the first computer graphics model; and” [See figure 6. Accordingly, creating the instance of the second computer graphics model (figure 6 element 610) and including said instance in the first computer graphics model (figure 6 element 600)]

“for each object in the instance of the second computer graphics model:

determining, based on the specification of the second computer graphics model, attributes of said each object that are overridable; and”[See Col. 13 lines 3-12.

Accordingly, for each object in the instance of the second computer graphics model:

determining, based on the specification of the second computer graphics model, attributes of said each object that are overridable (need only select the bend disabled indicator)]

“enabling the first user to override values for the attributes of said each object that are determined to be overridable.”[col. 1 lines 65-67, each modifier modifies some portion of the definition of an object that may result in a change in appearance of the object when rendered. See Col. 13 lines 3-12. Accordingly, enabling the first user (user) to override values for the attributes of said each object that are determined to be overridable (need only select the bend disabled indicator)]

Claim 31 :

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Silva discloses the following claimed limitations

“receive, from the first user, a new value for an overridable attribute of an object in the instance of the second computer graphics model;”[figure 6]

“apply the new value as a current value for the overridable attribute in the context of the first computer graphics model; and”[figure 6]

“store a specification of the first computer graphics model, wherein the specification includes a reference to the specification of the second computer graphics model and the new value.”[figure 6 and col. 11 lines 58-60]

Claim 33 :

Silva discloses the following claimed limitations:

“receive, from a second user in the plurality of users, one or more commands for creating a third computer graphics model in the model creation environment, the third computer graphics model including a third plurality of objects;” [col. 1 lines 35-36, three dimensional modeling systems allow users to generate models of three dimensional objects using computers. col. 12 line 32, each time a new object is instantiated by a user, a derived object is created. Col. 12 lines 35-36, the parameters defining the tube are shown in the tube definition 310. At this point the modifier stack only includes the reference to the tube master object and the transform for the tube. Accordingly, receiving, from a third user in a plurality of users (user), one or more commands for creating a third computer graphics model in a model creation environment (new object instantiated), the third computer graphics model (figure 3 element 300 tube) including a third plurality of objects (modifiers and parameters)]

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“receive, from the second user, a request to include an instance of the first computer graphics model in the third computer graphics model;” [col. 1 lines 35-36, three dimensional modeling systems allow users to generate models of three dimensional objects using computers. col. 12 line 32, each time a new object is instantiated by a user, a derived object is created. col. 12 lines 57-60, the modifier stack allows a user to easily add modifiers to an object and view not only the results of the new modifiers but also view a list of all the modifiers that apply to an object. Col. 13 lines 3-4, the user can disable a particular modifier, but keep the modifier in the modifier stack. Accordingly, receiving, from the second user (user), a request (new object instantiated) to include an instance of the first computer graphics model in the third computer graphics model (figure 6).]

“in response to the request, retrieve the specification of first computer graphics model from the storage device, the specification of the first computer graphics model including information identifying, for at least one object in the first plurality of objects, one or more attributes of said at least one object that are overridable;” [col. 4 lines 53-57, the bend modifier modifies the definition of the tube so that the tube will appear bent. The twist modifier modifies the definition of the bent tube so that the bent tube is also twisted. Col. 13 lines 3-12. Accordingly, in response to the request (modifier), retrieve the specification of the first computer graphics model (definition) from the storage device (memory, fig. 1), the specification of the first computer graphics model including information identifying (indicator), for at least one object in the first plurality of objects (bend), one or more attributes of said at least one object (bend) that are overridable (need only select the bend disabled indicator);]

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“create the instance of the first computer graphics model and including said instance in the third computer graphics model; and” [See figure 6. Accordingly, create the instance of the first computer graphics model (figure 6 element 610) and including said instance in the third computer graphics model (figure 6 element 600)]

“for each object in the instance of the first computer graphics model:

determine, based on the specification of the first computer graphics model, attributes of said each object that are overridable; and” [See Col. 13 lines 3-12.

Accordingly, for each object in the instance of the first computer graphics model:

determine, based on the specification of the first computer graphics model, attributes of said each object that are overridable (need only select the bend disabled indicator)]

“enable the second user to override values for the attributes of said each object that are determined to be overridable..”[col. 1 lines 65-67, each modifier modifies some portion of the definition of an object that may result in a change in appearance of the object when rendered. See Col. 13 lines 3-12. Accordingly, enabling the second user (user) to override values for the attributes of said each object that are determined to be overridable (need only select the bend disabled indicator)]

Claim 34 :

Silvia discloses: “The system of claim 29, wherein the second computer graphics model is created by a second user in the plurality of users distinct from the first user.”[col. 1 lines 35-36, three dimensional modeling systems allow users to generate models of three dimensional objects using computers.]

Claim 36 :

Silva discloses the following claimed limitations “wherein the specification of the second computer graphics model, further includes information identifying, for at least one object in the second plurality of objects, one or more attributes of said at least one object that are overridable;” [col. 4 lines 53-57, the bend modifier modifies the definition of the tube so that the tube will appear bent. The twist modifier modifies the definition of the bent tube so that the bent tube is also twisted. Col. 13 lines 3-12. Accordingly, wherein the specification of the second computer graphics model (definition), further includes information identifying (indicator), for at least one object in the second plurality of objects (bend), one or more attributes of said at least one object (bend) that are overridable (need only select the bend disabled indicator);]

“wherein the the processing component is further configured to: for each object in the instance of the second computer graphics model:

determine, based on the specification of the second computer graphics model, attributes of said each object that are not overridable; and” [See Col. 13 lines 3-12.

Accordingly, for each object in the instance of the third computer graphics model:

determining, based on the specification of the third computer graphics model, attributes of said each object that are overridable (need only select the bend disabled indicator)]

“prevent the first user from overriding values for the attributes of said each object that are determined to be not overridable.” [col. 1 lines 65-67, each modifier modifies some portion of the definition of an object that may result in a change in appearance of the object when rendered. See Col. 13 lines 3-12. Accordingly, prevent the first user (user) to override values for the

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attributes of said each object that are determined to be not overridable (bend disabled indicator)]

Claim 37 :

Silva discloses the following claimed limitations:

“receive, from a first user in a plurality of users, one or more commands for creating a first computer graphics model in a model creation environment, the first computer graphics model including a first plurality of objects;” [col. 1 lines 35-36, three dimensional modeling systems allow users to generate models of three dimensional objects using computers. col. 12 line 32, each time a new object is instantiated by a user, a derived object is created. Col. 12 lines 35-36, the parameters defining the tube are shown in the tube definition 310. At this point the modifier stack only includes the reference to the tube master object and the transform for the tube. Accordingly, receive, from a first user in a plurality of users (user), one or more commands for creating a first computer graphics model in a model creation environment (new object instantiated), the first computer graphics model (figure 3 element 300 tube) including a first plurality of objects (modifiers and parameters)]

“receive, from the first user, a request to include an instance of a second computer graphics model in the first computer graphics model, the second computer graphics model including a second plurality of objects;” [col. 1 lines 35-36, three dimensional modeling systems allow users to generate models of three dimensional objects using computers. col. 12 line 32, each time a new object is instantiated by a user, a derived object is created. col. 12 lines 57-60, the modifier stack allows a user to easily add modifiers to an object and view not only the results of the new modifiers but also view a list of all the modifiers that apply to an object. Col. 13 lines

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3-4, the user can disable a particular modifier, but keep the modifier in the modifier stack.

Accordingly, receive, from the first user (user), a request (new object instantiated) to include an instance of a second computer graphics model in the first computer graphics model (figure 6), the second computer graphics model (figure 6 element 610) including a second plurality of objects (modifier stack 280)]

“in response to the request, retrieve a specification of the second computer graphics model, the specification of the second computer graphics model including information identifying, for at least one object in the second plurality of objects, one or more attributes of said at least one object that are overridable;” [col. 4 lines 53-57, the bend modifier modifies the definition of the tube so that the tube will appear bent. The twist modifier modifies the definition of the bent tube so that the bent tube is also twisted. Col. 13 lines 3-12. Accordingly, in response to the request (modifier), retrieving a specification of the second computer graphics model (definition), the specification of the second computer graphics model including information identifying (indicator), for at least one object in the second plurality of objects (bend), one or more attributes of said at least one object (bend) that are overridable (need only select the bend disabled indicator);]

“create the instance of the second computer graphics model and including said instance in the first computer graphics model; and” [See figure 6. Accordingly, create the instance of the second computer graphics model (figure 6 element 610)and including said instance in the first computer graphics model (figure 6 element 600)]

“for each object in the instance of the second computer graphics model:

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determine, based on the specification of the second computer graphics model, attributes of said each object that are overridable; and”[See Col. 13 lines 3-12.

Accordingly, for each object in the instance of the second computer graphics model: determining, based on the specification of the second computer graphics model, attributes of said each object that are overridable (need only select the bend disabled indicator)]

“enable the first user to override values for the attributes of said each object that are determined to be overridable.”[col. 1 lines 65-67, each modifier modifies some portion of the definition of an object that may result in a change in appearance of the object when rendered. See Col. 13 lines 3-12. Accordingly, enabling the first user (user) to override values for the attributes of said each object that are determined to be overridable (need only select the bend disabled indicator)]

Claim 39 :

Silva discloses the following claimed limitations:

“receive, from the first user, a new value for an overridable attribute of an object in the instance of the second computer graphics model;”[figure 6]

“apply the new value as a current value for the overridable attribute in the context of the first computer graphics model; and”[figure 6]

“store a specification of the first computer graphics model, wherein the specification includes a reference to the specification of the second computer graphics model and the new value.”[figure 6 and col. 11 lines 58-60]

Claim 41 :

Silva discloses the following claimed limitations:

“receive, from a second user in the plurality of users, one or more commands for creating a third computer graphics model in the model creation environment, the third computer graphics model including a third plurality of objects;” [col. 1 lines 35-36, three dimensional modeling systems allow users to generate models of three dimensional objects using computers. col. 12 line 32, each time a new object is instantiated by a user, a derived object is created. Col. 12 lines 35-36, the parameters defining the tube are shown in the tube definition 310. At this point the modifier stack only includes the reference to the tube master object and the transform for the tube. Accordingly, receiving, from a third user in a plurality of users (user), one or more commands for creating a third computer graphics model in a model creation environment (new object instantiated), the third computer graphics model (figure 3 element 300 tube) including a third plurality of objects (modifiers and parameters)]

“receive, from the second user, a request to include an instance of the first computer graphics model in the third computer graphics model;” [col. 1 lines 35-36, three dimensional modeling systems allow users to generate models of three dimensional objects using computers. col. 12 line 32, each time a new object is instantiated by a user, a derived object is created. col. 12 lines 57-60, the modifier stack allows a user to easily add modifiers to an object and view not only the results of the new modifiers but also view a list of all the modifiers that apply to an object. Col. 13 lines 3-4, the user can disable a particular modifier, but keep the modifier in the modifier stack. Accordingly, receiving, from the second user (user), a request (new object

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instantiated) to include an instance of the first computer graphics model in the third computer graphics model (figure 6).]

“in response to the request, retrieve the specification of the first computer graphics model, the specification of the first computer graphics model including information identifying, for at least one object in the first plurality of objects, one or more attributes of said at least one object that are overridable;” [col. 4 lines 53-57, the bend modifier modifies the definition of the tube so that the tube will appear bent. The twist modifier modifies the definition of the bent tube so that the bent tube is also twisted. Col. 13 lines 3-12. Accordingly, in response to the request (modifier), retrieving a specification of the first computer graphics model (definition), the specification of the first computer graphics model including information identifying (indicator), for at least one object in the first plurality of objects (bend), one or more attributes of said at least one object (bend) that are overridable (need only select the bend disabled indicator);]

“create the instance of the first computer graphics model and including said instance in the third computer graphics model; and” [See figure 6. Accordingly, creating the instance of the first computer graphics model (figure 6 element 610) and including said instance in the third computer graphics model (figure 6 element 600)]

“for each object in the instance of the first computer graphics model:

determine, based on the specification of the first computer graphics model, attributes of said each object that are overridable; and” [See Col. 13 lines 3-12.

Accordingly, for each object in the instance of the first computer graphics model:

determining, based on the specification of the first computer graphics model, attributes of said each object that are overridable (need only select the bend disabled indicator)]

“enable the second user to override values for the attributes of said each object that are determined to be overridable.”[col. 1 lines 65-67, each modifier modifies some portion of the definition of an object that may result in a change in appearance of the object when rendered. See Col. 13 lines 3-12. Accordingly, enabling the second user (user) to override values for the attributes of said each object that are determined to be overridable (need only select the bend disabled indicator)]

Claim 42 :

Silvia discloses: “wherein the second computer graphics model is created by a second user in the plurality of users distinct from the first user.”[col. 1 lines 35-36, three dimensional modeling systems allow users to generate models of three dimensional objects using computers.]

Claim 44 :

Silva discloses the following claimed limitations “wherein the specification of the second computer graphics model, further includes information identifying, for at least one object in the second plurality of objects, one or more attributes of said at least one object that are overridable;” [col. 4 lines 53-57, the bend modifier modifies the definition of the tube so that the tube will appear bent. The twist modifier modifies the definition of the bent tube so that the bent tube is also twisted. Col. 13 lines 3-12. Accordingly, wherein the specification of the second computer graphics model (definition), further includes information identifying (indicator), for at least one object in the second plurality of objects (bend), one or more attributes of said at least one object (bend) that are overridable (need only select the bend disabled indicator);]

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“wherein the method further comprises: for each object in the instance of the second computer graphics model:

determining, based on the specification of the second computer graphics model, attributes of said each object that are not overridable; and” [See Col. 13 lines 3-12.

Accordingly, for each object in the instance of the third computer graphics model:

determining, based on the specification of the third computer graphics model, attributes of said each object that are overridable (need only select the bend disabled indicator)]

“preventing the first user to override values for the attributes of said each object that are determined to be not overridable.” [col. 1 lines 65-67, each modifier modifies some portion of the definition of an object that may result in a change in appearance of the object when rendered. See Col. 13 lines 3-12. Accordingly, preventing the first user (user) to override values for the attributes of said each object that are determined to be not overridable (bend disabled indicator)]

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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10. Claims 22, 24, 27, 30, 32, 35, 38, 40, and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6184901 by Silva et. al. (hereafter Silva) further in view of U.S. Patent 6377263 by Falacara et. al. (hereafter Falacara).

Claim 22:

Silva discloses “wherein the first plurality of objects in the first computer graphics model are organized according to a hierarchical structure, and” [table 1]

However, Silvia does not explicitly disclose: “wherein including the instance of the second computer graphics model in the first computer graphics model comprises geometrically coupling the instance of the second computer graphics model to the hierarchical structure.”

On the other hand, Falacara discloses figure 6 rendering a human component 601. Figure 6 illustrates a sample part hierarchy for a “human” component. Abstract discloses the graphical model and behaviorial model are independent software modules that may be reused with other components. That the graphical model of a component is constructed from a hierarchy of parts. Accordingly, wherein including the instance of the second computer graphics model (parts) in the first computer graphics model (parts) comprises geometrically coupling (graphical model) the instance of the second computer graphics model to the hierarchical structure (constructed from hierarchy of parts).

Both Silvia and Falacara are directed to three-dimensional modeling, and are therefore within the same filed of endeavor. It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have applied Falacara’s disclosure to Silvia for the purpose of reusing parts of models in order to further improve the modeling process by making it quicker.

Claim 24:

Silva does not explicitly disclose the following claimed limitations: “wherein the specification of the first computer graphics model is stored as a first file, and wherein the specification of the second computer graphics model is stored as a second file distinct from the first file.”

On the other hand, Falacara discloses col. 9 lines 51-53, the geometry files may be vrmf files that contain additional geometry information needed to render the components 110. Accordingly disclosing “wherein the specification of the first computer graphics model is stored as a first file, and wherein the specification of the second computer graphics model is stored as a second file distinct from the first file.”

Both Silvia and Falacara are directed to three-dimensional modeling, and are therefore within the same field of endeavor. It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have applied Falacara’s disclosure to Silvia for the purpose of reusing parts of models in order to further improve the modeling process by making it quicker.

Claim 27:

Silva discloses:

“in response to the request, retrieving a specification of the third computer graphics model, the specification of the third computer graphics model including information identifying, for at least one object in the third plurality of objects, one or more attributes of said at least one object that are overridable;”[col. 4 lines 53-57, the bend modifier modifies the definition of the

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tube so that the tube will appear bent. The twist modifier modifies the definition of the bent tube so that the bent tube is also twisted. Col. 13 lines 3-12. Accordingly, in response to the request (modifier), retrieving a specification of the third computer graphics model (definition), the specification of the third computer graphics model including information identifying (indicator), for at least one object in the third plurality of objects (bend), one or more attributes of said at least one object (bend) that are overridable (need only select the bend disabled indicator);]

“creating the instance of the third computer graphics model and including said instance in the first computer graphics model; and” [See figure 6. Accordingly, creating the instance of the third computer graphics model (figure 6 element 610) and including said instance in the first computer graphics model (figure 6 element 600)]

“for each object in the instance of the third computer graphics model:

determining, based on the specification of the third computer graphics model, attributes of said each object that are overridable; and” [See Col. 13 lines 3-12.

Accordingly, for each object in the instance of the third computer graphics model:

determining, based on the specification of the third computer graphics model, attributes of said each object that are overridable (need only select the bend disabled indicator)]

“enabling the first user to override values for the attributes of said each object that are determined to be overridable.” [col. 1 lines 65-67, each modifier modifies some portion of the definition of an object that may result in a change in appearance of the object when rendered. See Col. 13 lines 3-12. Accordingly, enabling the first user (user) to override values for the attributes of said each object that are determined to be

overridable (need only select the bend disabled indicator)]

Silva does not explicitly disclose “receiving, from the first user, a request to include an instance of a third computer graphics model in the first computer graphics model, the third computer graphics model having been created by a third user in the plurality of users distinct from the first and second users, the third computer graphics model including a third plurality of objects;”

On the other hand, Falacara discloses a graphic artist takes the model concept and using a modeling software program, generates a geometry library. Using a component builder software program, a programmer takes the behavior concept and the geometry library and generates a component library. receiving, from the first user (programmer), a request to include an instance of a third computer graphics model (geometry library) in the first computer graphics model (component library), the third computer graphics model having been created by a third user (graphic artist) in the plurality of users (programmer, artist, user) distinct from the first and second users (graphic artist, user, programmer), the third computer graphics model (geometry library) including a third plurality of objects (additional geometry information);

Both Silvia and Falacara are directed to three-dimensional modeling, and are therefore within the same filed of endeavor. It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have applied Falacara’s disclosure to Silvia for the

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purpose of reusing parts of models in order to further improve the modeling process by making it quicker.

Claim 30 :

Silva discloses “wherein the first plurality of objects in the first computer graphics model are organized according to a hierarchical structure, and” [table 1]

However, Silvia does not explicitly disclose: “wherein including the instance of the second computer graphics model in the first computer graphics model comprises geometrically coupling the instance of the second computer graphics model to the hierarchical structure.”

On the other hand, Falacara discloses figure 6 rendering a human component 601. Figure 6 illustrates a sample part hierarchy for a “human” component. Abstract discloses the graphical model and behaviorial model are independent software modules that may be reused with other components. That the graphical model of a component is constructed from a hierarchy of parts. Accordingly, wherein including the instance of the second computer graphics model (parts) in the first computer graphics model (parts) comprises geometrically coupling (graphical model) the instance of the second computer graphics model to the hierarchical structure (constructed from hierarchy of parts).

Both Silvia and Falacara are directed to three-dimensional modeling, and are therefore within the same filed of endeavor. It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have applied Falacara’s disclosure to Silvia for the purpose of reusing parts of models in order to further improve the modeling process by making it quicker.

Claim 32 :

Silva does not explicitly disclose the following claimed limitations: “wherein the specification of the first computer graphics model is stored as a first file, and wherein the specification of the second computer graphics model is stored as a second file distinct from the first file.”

On the other hand, Falacara discloses col. 9 lines 51-53, the geometry files may be vrmf files that contain additional geometry information needed to render the components 110. Accordingly disclosing “wherein the specification of the first computer graphics model is stored as a first file, and wherein the specification of the second computer graphics model is stored as a second file distinct from the first file.”

Both Silvia and Falacara are directed to three-dimensional modeling, and are therefore within the same field of endeavor. It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have applied Falacara’s disclosure to Silvia for the purpose of reusing parts of models in order to further improve the modeling process by making it quicker.

Claim 35 :

Silva discloses:

“in response to the request, retrieve a specification of the third computer graphics model from the storage device, the specification of the third computer graphics model including information identifying, for at least one object in the third plurality of objects, one or more attributes of said at least one object that are overridable;”[col. 4 lines 53-57, the bend modifier

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modifies the definition of the tube so that the tube will appear bent. The twist modifier modifies the definition of the bent tube so that the bent tube is also twisted. Col. 13 lines 3-12.

Accordingly, in response to the request (modifier), retrieving a specification of the third computer graphics model (definition), the specification of the third computer graphics model including information identifying (indicator), for at least one object in the third plurality of objects (bend), one or more attributes of said at least one object (bend) that are overridable (need only select the bend disabled indicator);]

“create the instance of the third computer graphics model and including said instance in the first computer graphics model; and” [See figure 6. Accordingly, creating the instance of the third computer graphics model (figure 6 element 610)and including said instance in the first computer graphics model (figure 6 element 600)]

“for each object in the instance of the third computer graphics model:

determining, based on the specification of the third computer graphics model, attributes of said each object that are overridable; and” [See Col. 13 lines 3-12.

Accordingly, for each object in the instance of the third computer graphics model:

determining, based on the specification of the third computer graphics model, attributes of said each object that are overridable (need only select the bend disabled indicator)]

“enabling the first user to override values for the attributes of said each object that are determined to be overridable.” [col. 1 lines 65-67, each modifier modifies some portion of the definition of an object that may result in a change in appearance of the object when rendered. See Col. 13 lines 3-12. Accordingly, enabling the first user (user) to override values for the attributes of said each object that are determined to be

overridable (need only select the bend disabled indicator)]

Silva does not explicitly disclose “receive, from the first user, a request to include an instance of a third computer graphics model in the first computer graphics model, the third computer graphics model having been created by a third user in the plurality of users distinct from the first and second users, the third computer graphics model including a third plurality of objects;”

On the other hand, Falacara discloses a graphic artist takes the model concept and using a modeling software program, generates a geometry library. Using a component builder software program, a programmer takes the behavior concept and the geometry library and generates a component library. receiving, from the first user (programmer), a request to include an instance of a third computer graphics model (geometry library) in the first computer graphics model (component library), the third computer graphics model having been created by a third user (graphic artist) in the plurality of users (programmer, artist, user) distinct from the first and second users (graphic artist, user, programmer), the third computer graphics model (geometry library) including a third plurality of objects (additional geometry information);

Both Silvia and Falacara are directed to three-dimensional modeling, and are therefore within the same filed of endeavor. It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have applied Falacara’s disclosure to Silvia for the

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purpose of reusing parts of models in order to further improve the modeling process by making it quicker.

Claim 38 :

Silva discloses “wherein the first plurality of objects in the first computer graphics model are organized according to a hierarchical structure, and” [table 1]

However, Silvia does not explicitly disclose: “wherein including the instance of the second computer graphics model in the first computer graphics model comprises geometrically coupling the instance of the second computer graphics model to the hierarchical structure.”

On the other hand, Falacara discloses figure 6 rendering a human component 601. Figure 6 illustrates a sample part hierarchy for a “human” component. Abstract discloses the graphical model and behaviorial model are independent software modules that may be reused with other components. That the graphical model of a component is constructed from a hierarchy of parts. Accordingly, wherein including the instance of the second computer graphics model (parts) in the first computer graphics model (parts) comprises geometrically coupling (graphical model) the instance of the second computer graphics model to the hierarchical structure (constructed from hierarchy of parts).

Both Silvia and Falacara are directed to three-dimensional modeling, and are therefore within the same filed of endeavor. It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have applied Falacara’s disclosure to Silvia for the purpose of reusing parts of models in order to further improve the modeling process by making it quicker.

Claim 40 :

Silva does not explicitly disclose the following claimed limitations: “wherein the specification of the first computer graphics model is stored as a first file, and wherein the specification of the second computer graphics model is stored as a second file distinct from the first file.”

On the other hand, Falacara discloses col. 9 lines 51-53, the geometry files may be vrmf files that contain additional geometry information needed to render the components 110. Accordingly disclosing “wherein the specification of the first computer graphics model is stored as a first file, and wherein the specification of the second computer graphics model is stored as a second file distinct from the first file.”

Both Silvia and Falacara are directed to three-dimensional modeling, and are therefore within the same field of endeavor. It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have applied Falacara’s disclosure to Silvia for the purpose of reusing parts of models in order to further improve the modeling process by making it quicker.

Claim 43 :

Silva discloses:

“in response to the request, retrieve a specification of the third computer graphics model, the specification of the third computer graphics model including information identifying, for at least one object in the third plurality of objects, one or more attributes of said at least one object that are overridable;”[col. 4 lines 53-57, the bend modifier modifies the definition of the tube so

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that the tube will appear bent. The twist modifier modifies the definition of the bent tube so that the bent tube is also twisted. Col. 13 lines 3-12. Accordingly, in response to the request (modifier), retrieving a specification of the third computer graphics model (definition), the specification of the third computer graphics model including information identifying (indicator), for at least one object in the third plurality of objects (bend), one or more attributes of said at least one object (bend) that are overridable (need only select the bend disabled indicator);]

“create the instance of the third computer graphics model and including said instance in the first computer graphics model; and” [See figure 6. Accordingly, creating the instance of the third computer graphics model (figure 6 element 610)and including said instance in the first computer graphics model (figure 6 element 600)]

“for each object in the instance of the third computer graphics model:

determine, based on the specification of the third computer graphics model, attributes of said each object that are overridable; and” [See Col. 13 lines 3-12.

Accordingly, for each object in the instance of the third computer graphics model:

determining, based on the specification of the third computer graphics model, attributes of said each object that are overridable (need only select the bend disabled indicator)]

“enable the first user to override values for the attributes of said each object that are determined to be overridable.” [col. 1 lines 65-67, each modifier modifies some portion of the definition of an object that may result in a change in appearance of the object when rendered. See Col. 13 lines 3-12. Accordingly, enabling the first user (user) to override values for the attributes of said each object that are determined to be

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overridable (need only select the bend disabled indicator)]

Silva does not explicitly disclose “receive, from the first user, a request to include an instance of a third computer graphics model in the first computer graphics model, the third computer graphics model having been created by a third user in the plurality of users distinct from the first and second users, the third computer graphics model including a third plurality of objects;”

On the other hand, Falacara discloses a graphic artist takes the model concept and using a modeling software program, generates a geometry library. Using a component builder software program, a programmer takes the behavior concept and the geometry library and generates a component library. receiving, from the first user (programmer), a request to include an instance of a third computer graphics model (geometry library) in the first computer graphics model (component library), the third computer graphics model having been created by a third user (graphic artist) in the plurality of users (programmer, artist, user) distinct from the first and second users (graphic artist, user, programmer), the third computer graphics model (geometry library) including a third plurality of objects (additional geometry information);

Both Silvia and Falacara are directed to three-dimensional modeling, and are therefore within the same filed of endeavor. It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have applied Falacara’s disclosure to Silvia for the

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purpose of reusing parts of models in order to further improve the modeling process by making it quicker.

Response to Arguments

11. Applicant's arguments with respect to claims 21-44 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

12. The prior art made of record listed on pto-892 and not relied, if any, upon is considered pertinent to applicant's disclosure.

Contact Information

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL PHAM whose telephone number is (571)272-3924. The examiner can normally be reached on 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cottingham can be reached on 571-272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. P./
Examiner, Art Unit 2167

/John R. Cottingham/
Supervisory Patent Examiner, Art Unit
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